

# Engineering & Computer Science BITS

## Dean Talks to New Students at ECA Orientation

Thursday, September 2<sup>nd</sup> was Orientation for all students entering the Faculty of Engineering and Computer Science. More than 160 Frosh arrived in H 110 to find out a little more about the Faculty. New students listened to Stanley Yee - President of ECA, Dr. Taddeo - Dean, Prof. Hamblin - Associate Dean, Student Affairs and Brian Counihan, Dean of Students, before moving to the terrace for a barbecue, introduction to ECA affiliated associations and department tours. (Rumour has it that some adventurous Frosh went to Bishop's Court and serenaded members of the Rector's Office with a rousing rendition of the Engineering Hymn.)

In his address, Dr. Taddeo welcomed new students by telling them that they would not find themselves in classes with two or three hundred other people, but that they would be able to develop relationships with their professors. "You are the reason we are here," he said, "remind us of it from time to time." He then went on to say that, in his experience, engineers (and computer scientists) rarely have a problem saying exactly what is on their minds. The Dean urged the Frosh to take advantage of the diversity and opportunity available within Concordia, to do more than obtain a degree. "You are here to to get an education. Do more than just study. Contribute to the University community, meet and exchange ideas with other people. Who knows, the person next to you may be president of BNR in twenty years." He also prompted them to think of the long term future of Canadian society. "Because technology is increasingly important in our daily lives, Canada's ability to develop that technology and compete with the United States, the European Community and the countries of the Pacific Rim will determine how we live in the

future. As you have chosen to specialize in high tech fields, you will need to value hard work and perseverance if we are to be competitive in the future." Dr. Taddeo concluded by saying that he hopes to meet all of the new students over the course of the year, and inviting them to visit the Dean's Office some time - even if it is quicker to walk up than to take the escalators.

*(Ed.'s note: Three cheers to ECA for donating leftover food from the barbecue to the Old Brewery Mission.)*

## Nouvelles du Bureau de Recyclage

Mercredi le 21 juillet, trente-neuf étudiant(e)s et membres de la faculté de génie et science informatique ont visité le site d'enfouissement de Miron et l'installation où les produits recyclables sont séparés. La plupart faisait partie d'un cours d'études supérieures, "Matières Dangereuses", enseigné par Dr. Cheung. Il est probable que Dr. Cheung proposera de faire une visite à la station d'épuration des eaux usées de la communauté urbaine de Montréal en mi-Octobre.

Un petit mot aux habitant(e)s et habitué(e)s du 9<sup>ième</sup> étage (Pavillon Hall): Le baril de recyclage bleu, inscrit "Bouteilles" (près des distributeurs automatiques) prend seulement les bouteilles transparentes, décapsulées. SVP, ne jetez pas des déchets dans les bouteilles.

Le bureau de recyclage se trouve à H 462-5, poste 7351. Toutes vos questions et suggestions sont appréciées.

## WHO'S NEW (Who's Back)

Welcome and welcome back to the following people:

### Centre for Building Studies

Sheila Andersen, Secretary  
Dr. Krishnan Gowri, Assistant Professor

### Civil Engineering

Dr. Maria Elektorowicz, Assistant Professor

### Computer Science

Dr. Sabine Bergler, Assistant Professor  
Edwina Bowen, Secretary.  
Dr. Gregory Butler, Associate Professor  
Dr. Abderrazak Ghedansi, Assistant Professor  
Dr. Lata Narayan, Assistant Professor  
Dr. Jun Shen, Assistant Professor

### Dean's Office

Agi Csordas, Clerk  
Dawn Wiseman, Communications Officer

### Electrical and Computer Engineering

Maria Buffone, Secretary  
Dr. William Lynch, Assistant Professor  
Marlean Martin, Secretary  
Irene Mazis, Secretary  
Bonnie Weppeler, Secretary

### Mechanical Engineering

Dr. Samir Amiouny, Assistant Professor  
Dr. Ramesh Rajagopalan, Assistant Professor

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# H a p p e n i n g s

## LAST DAY FOR ...

*(Academic deadlines apply to both undergraduate and graduate students, unless otherwise specified.)*

### September

#### Thursday 16

... course-change period

#### Wednesday 15

... submission of late completion work for Summer Session courses 1993. (ugrad)

... submission of theses for students intending to graduate at Fall convocation. (grad)

#### Friday 17

... application FCAR, Research Equipment Maintenance Grants

... application NSERC, Infrastructure Grants

... application NSERC, Major Installation/Major Equipment Grants

#### Tuesday 21

... application for replacement and supplemental examinations for courses taken during Summer Session 1993.

... withdrawal with tuition refund for fall-term and two-term courses. (ugrad)

... withdrawal from Fall 1993 courses with refund. (grad)

#### Wednesday 22

... application CMHC, External Research Programme Grants

... application Connaught Laboratories, Canadian Universities Research Programme Grants

#### Thursday 23

... application Human Frontier Science Program, Research & Workshop grants, Long & Short Term Fellowships

#### Friday 24

... nominations NRC, Steacie Prize

#### Friday 25

... application NSERC/Environment Canada, Research Grants

#### Monday 27

... handing in ENGR 410 papers today at 5pm. (Engr. ugrads planning to graduate Spring '94)

#### Thursday 30

... application for Director for REACH '94.

### October

#### Friday 1

... application for re-evaluation of courses taken during Summer Session 1993. (ugrad)

... application NSERC, Bilateral Exchange Program Grants

... application NSERC, CIDA/NSERC Research Associates Grants

... application NSERC, International Scientific Exchange Awards

... application NSERC, Research Abroad Grants

... application NSERC, Research Grants for First-Time Applicants

#### Wednesday 6

... withdrawal from Fall courses with partial refund. (grad)

... application NSERC, Women's Faculty Award

#### Thursday 7

... application FCAR/IRSST, Prevention of Accidents in the Workplace Grants

#### Saturday 16

... application AUCC, Visiting and Research Fellowships

... application FCAR, New Researchers Grants

... application NSERC, Conference Grants

... application NSERC, Equipment Grants

... application NSERC, Research Grants

#### Thursday 21

... application NSERC/EMR, Research Agreements Program

#### Saturday 23

... application Programme d'aide à la recherche-développement en transport (PARDT), Research Grants

#### Friday 29

... academic withdrawal from fall-term classes. (ugrad)

### November

#### Thursday 4

... withdrawal for two term courses, with partial refund. (grad)

#### Saturday 6

... application NATO, Fellowships

#### Monday 15

... application NSERC, Visiting Fellowships in Canadian Government Laboratories

#### Tuesday 23

... application NATO, Collaborative Research Grants

... application NSERC, International Fellowships

## EVENTS

### September

#### Monday 13 to Saturday 18

\* Welcome Week

#### Wednesday 15

\* Undergraduate Programme Guide available in Dean's Office from today.

\* CBS departmental meeting. (tentative date)

#### Thursday 16

\* Rosh Hashana

#### Friday 17

\* Faculty Council meeting, 14h00, H 769

#### Saturday 18

\* Bash at Loyola Campus Centre

#### Wednesday 22

\* Board of Governors' meeting, 08h00, GM 407-1

#### Friday 24

\* Senate Meeting, 14h00, L DL 200

#### Saturday 25

Yom Kippur


#### Thursday 30

\* ECA Career Day

\* CSCE/ACES trip to Washington

### October

#### Friday 1

\* Concordia Shuffle 

\* Dean's Faculty & Staff Reception

#### Saturday 2

\* Replacement and supplemental examinations for Summer Session 1993. (ugrad)

#### Friday 8

\* Computer Science departmental meeting

#### Monday 11

\* Thanksgiving Day - University closed

#### Thursday 14 to Saturday 16

\* Homecoming Weekend

25th Anniversary of SGW Prototype Class

#### Friday 15

\* Faculty Council meeting, 14h00, H 769

\* University Writing Test

#### Wednesday 20

\* Board of Governors, 18h30, L AD 308

#### Friday 22

\* Senate meeting, 14h00, L DL 200


#### Monday 25

\* Federal Election - Don't forget to vote!

#### Saturday 30

\* ECA Halloween Bash (tentative date)

#### Sunday 31

\* Halloween 

### November

#### Tuesday 9

\* Fall Convocation

#### Thursday 11

\* Remembrance Day

#### Monday 15

\* More information about research grants and deadlines is available through the Dean's Office or Research Services, ext. 4885.

\* Please remember to check bulletin boards outside the Dean's Office and Departments for more up-to-date information.



# FACULTY FACES

## Dr. Peter Grogono - Department of Computer Science

Meet Dr. Peter Grogono, professor and researcher, Department of Computer Science...

Dr. Peter Grogono thinks Concordia is a more personal place than most universities. He likes teaching here. In fact, teaching is at the top of his agenda.

"Teaching is the bread and butter of universities, research is the jam. Our primary goal [as professors] should be to provide students with an education they can use for the rest of their lives."

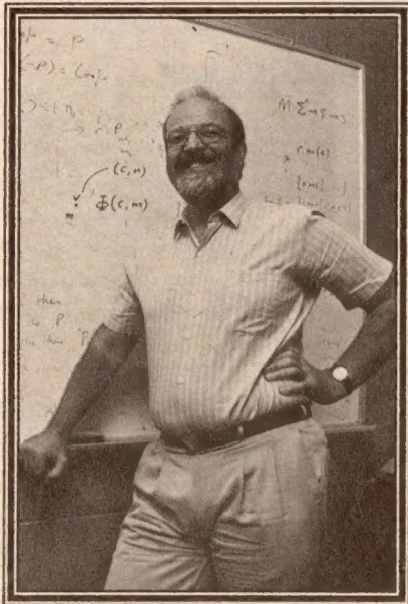
Not surprisingly, Dr. Grogono is the Undergraduate Programme Director for Computer Science. He started the job in January 1993, and has been taking a long, hard look at the undergraduate curriculum. Engineering education is based on a solid grounding in basic principles, students spend four years learning the ABC's of analysis and design. He would like to structure computer science in the same way. Pressure from industry and students to keep up with the latest trends and to teach courses on state-of-the-art technology challenge this goal. Changes in the field of

computer science occur so quickly that, to stay up to date, curricula would need to be changed yearly, if not more often. Dr. Grogono believes that, "a degree which emphasizes mathematics and logic is the basis for any application of computer science."

He would know, his undergraduate degree is in mathematics. He had been building computers since the age of 14, but Cambridge did not offer a degree in computer science in 1962. "I developed other interests in university," he says, among them theatre, film, peace issues and the environment. Peter Grogono's first job after graduation was as a director of a film festival, but he laughs if you suggest he might have been another Steven Spielberg. In any case, his love for computer science won out, in 1969 he developed his first computer language for composition of electronic music. Since then languages have been his primary area of research.

He wrote the first text book for Pascal, *Programming in Pascal*, which sold more than half a million copies world-wide and was translated into six languages. His current research, the development of an object-oriented language, provides plenty of work for the students - both graduate and undergraduate - who work with him. He says that the language has, "a small but dedicated fan club in several countries," and will soon be written up in the Russian computer hobbyists' magazine, *The Monitor*.

Meet Peter Grogono, environmental and peace activist...



While many of us equate the collapse of the Soviet Union, and the subsequent end of the Cold War, with an improved global military situation, Dr. Grogono believes the situation, if anything, is worse. He points to former Soviet Republics which now have their own stockpiles of nuclear warheads. And he looks a little closer to home, where the United States and, to a lesser extent, our own country, continue to spend billions of dollars on military development, while a large portion of the population goes without adequate health care and education. "Most people believe that SDI [Strategic Defense Initiative] died with the Cold War, it didn't. The US has

a programme called Ballistic Missile Defense, it's just SDI by another name." To further support his stand he gives the example of US R&D of "micronukes", small, limited yield nuclear weapons which are not yet covered by any disarmament treaty.

Dr. Grogono's hobby is "the photography of natural things", to borrow a phrase from one of his favourite photographers, Freeman Patterson. He is trying to capture a beauty we may be losing. "You can see it in our national parks, the large animals, bears, elk etc... are disappearing." He thinks it may be too late to reverse a lot of the environmental damage we have done, and that we are in the process of creating a very sterile planet. When asked if human life will disappear along with other large animals, he tells you that we will survive, "with the rats and cockroaches." He also believes the planet should recover in a relatively short time on a planetary scale - 20 million years or so.

Faculty Faces is a regular feature of *Bits*, focusing on personalities within Engineering and Computer Science.

Although the outlook Dr. Grogono presents seems bleak, he says we all must work at a grassroots level to bring about change, "Support MP's who are against military spending. Write to your MP." He wants us all to get involved in our future. Science for Peace is a Canadian charitable organization and an official Non-Governmental Organization at the United Nations. Its members are pure, applied and social scientists who conduct research and education for peace. Dr. Grogono is a member of the Board of Directors, but he doesn't just sit around talking to people who agree with his views, "I like to get the message out to the unconverted." To this end he has given interviews and written opinion pieces for various publications, including *The Globe and Mail*. Recently, he has begun to write short stories as a way of reaching people. His "Virtues of Reality", will appear in a forthcoming issue of *Matrix*, a Montreal based cultural and literary magazine.

If you would like more information about Science for Peace you can call Dr. Grogono at 3012.

*Matrix* is available at most "better" Montreal magazine stores, and some book stores.

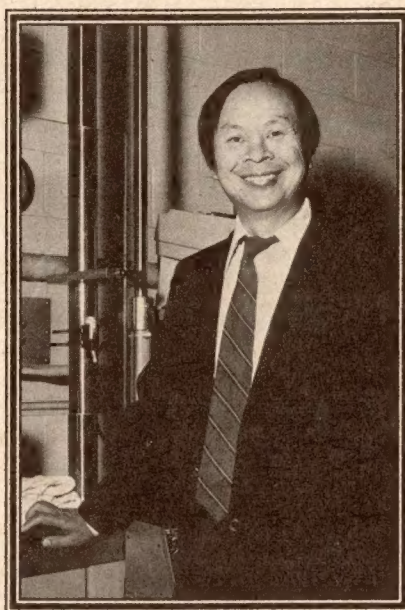
## A Note to Graduate Students:

The Engineering and Computer Science Graduate Association (ECSGA) wishes to welcome all of its members to the Faculty. ECSGA organizes various multicultural events throughout the year where students from all ethnic backgrounds can meet socially to listen to music, discuss academic and current events or just relax with friends. We also provide financial support for presentations of technical papers at conferences and symposiums. Through our office, at 2100 Mackay (PR annex) room 325, you may borrow sporting equipment for badminton, squash, soccer and cricket. Other services (computer access, laser printing, faxing, photocopying, telephones, lounge and television) are provided through a negotiated contract with the Graduate Students' Association (GSA - located in 2030 Mackay). ECSGA strives to improve the working conditions of graduate students within the Faculty of Engineering and Computer Science. In the past we have purchased computers, printers, fridges and microwaves for student offices. All members of the ECSGA Council are available to receive your comments and suggestions, please contact your departmental representative or our office, extension 8604.



## Concordia Centre for Composites is Faculty's Newest Research Centre

Because of the attractive characteristics of composite materials (high strength, light weight, good corrosion resistance, ease of manufacturing etc...), research into their properties, design and manufacturing has developed rapidly over the past thirty years. When Dr. Suong Hoa began his research in 1979, no one could have guessed that, fourteen years later, he would head one of the leading composites research group in Canada. The work began with visits to companies which were using composites in manufacturing, contract and grant applications, and the usual haggling for laboratory space. Dr. Hoa soon began bringing research assistants and associates into the lab, many of them undergraduate students. "It was a new area, by getting undergraduates involved, I was helping them and I was helping myself." He was hoping some of them would stay on to do graduate work in composites. Several have - Christine Smith, Greg Rohrauer and Paul Ouellette, to name a few. "Paul has been with me since the beginning - 14 years. That's a long time."



It has also been a relatively short time. There are composites research centres in other countries, but the Concordia Centre for Composites is a first for Canadian universities. Fifteen graduate students, five research associates and about a dozen professors contribute to the Centre. While the majority of professors are from Concordia's department of Mechanical Engineering, included in the group are professors from the departments of chemistry, physics and electrical engineering, as well as professors from McGill and ETS. They conduct fundamental research, as well as contractual applied research and testing for companies such as Canadair, Bell Textron Helicopter, Pratt and Whitney, CPF Dualam and Spar Aerospace. The Centre has state-of-the-art equipment with which members can: design composites using finite element analysis of material behaviour; consult on manufacturing techniques and processes; and conduct non-destructive evaluation of materials through acoustic emissions testing. They can also, by experience, gauge their work to a client's budget and needs, whether they are high tech, low tech or commercial. In October, Dr. Hoa hopes to establish an Industrial Action Committee for the Centre consisting of members from companies which use composites. In the meantime, the Centre is already off to an international start, in May '93 (the month it was approved) it mailed the first announcement for the International Conference on Design and Manufacturing using Composites, to be held in Montreal in August, 1994.

*You can get more information about the Concordia Centre for Composites from Dr. Hoa at 3139.*

*If you are interested in the International Conference on Design and Manufacturing of Composites please contact Sophie Mérineau at 3177.*

**We want to hear from you. If you have any suggestions or comments about *Bits*, please fill in this form and return it to:**

**Dawn Wiseman, Faculty Communications Officer, H 907.**

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## ECA & Academic Affairs

The mandate of the ECA Council is to represent undergraduates' interests within the Faculty, the University and the community. This broad mandate is reflected in the wide range of activities and services sponsored by ECA and its nine affiliated societies. In the 1993-94 academic year, ECA intends to build on its present programmes to ensure a strong future for the Association and its members.

In this issue of *Bits*, I focus on our academic goals and services.

In the past, certain questions have been raised as to the value and use of the current professor/course evaluation system. Many students have expressed a lack of faith in the procedure, and its follow-up. As representatives of the student body, we intend to study the implementation of other forms of evaluation which may be more equitable and satisfactory to all involved parties.

A university education involves a huge commitment of time and effort on the part of both the student and the professor. Ideally, in class, there is a successful exchange of information and experience-based knowledge between the teacher and the student. The ECA plans to establish a student-nominated award for professors that will acknowledge those who have shown an exceptional commitment to teaching. Watch *Bits* and the *Nut & Bolt* for more information.

One of our more popular services, the Exam Bank, will be continued and improved this year. Students may borrow, free of charge, old midterms and finals to use as study aids. The ECA plans to update the rapidly aging (and fraying) exams by approaching each department in the Faculty to establish some system of exchange.

Remember, the ECA has a position dedicated to academic affairs. If you need to know where to go or who to see about academic problems, or if you have any questions about Concordia's academic regulations, please contact us in H 880-10, or at 7408 (telephone), 4535 (fax).

Stanley Yee,  
President.

**Engineering & Computer Science Bits**, is a bi-monthly publication of the Faculty's Communications Office. For more information please call ext. 3073.